

B<sup>1</sup>  
13. (Amended) An isolated nucleic acid sequence [comprising a nucleic acid sequence which encodes the polypeptide of claim 1] selected from the group consisting of:

- (a) a nucleic acid sequence comprising the sequence of SEQ ID NO:1 and
- (b) a nucleic acid sequence encoding a polypeptide having the amino acid sequence of SEQ ID NO:2.

215. (Unchanged) A nucleic acid construct comprising the nucleic acid sequence of claim 13 operably linked to one or more control sequences that direct the production of the polypeptide in a suitable expression host.

B<sup>2</sup> c  
316. (Amended) A recombinant expression vector comprising the nucleic acid <sup>construct</sup> ~~sequence~~ of claim 15.

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17. (Amended) A recombinant host cell comprising the nucleic acid <sup>construct</sup> ~~sequence~~ of claim 15.

B<sup>3</sup>  
522. (Amended) A method for producing [the] a glucose isomerase polypeptide [of claim 1], said method comprising: (a) cultivating a host cell [comprising a nucleic acid construct comprising a nucleic acid sequence encoding the polypeptide] of claim 4 under conditions suitable for production of the polypeptide; and (b) recovering the polypeptide from the host cell or supernatant, or recovering the host cell containing the polypeptide.

#### REMARKS

Reconsideration and allowance are respectfully requested.

Claims 1-22 were pending. In this response, claims 1-12, 14 and 18-21 are cancelled without prejudice and claims 13, 16, 17, and 22 are amended for further clarity. Support for the amendments can be found in the specification and claims as originally filed. No new matter is added. Accordingly, claims 13, 15-17, and 22 are pending and at issue.

### **Restriction Requirement**

The Examiner has required restriction of the claims of this application to one of the following invention groups: Group I (claims 1-12 and 21), directed to glucose isomerase polypeptides; and Group II (claims 13-20 and 22), directed to DNA encoding glucose isomerase, vectors, cells, and method for producing the polypeptide.

Applicants hereby affirm the election of Group II for prosecution in this application. In this response, claims 1-12 and 21 are cancelled as being directed to a non-elected invention. Applicants reserve the right to pursue the non-elected claims in divisional applications.

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### **Priority**

The Examiner has pointed out that Applicants have not yet filed a certified copy of the Tunisian priority application. A certified copy is attached herewith.

### **Claim Objections**

Claims 13, 14, and 22 have been objected to for informalities. In this response, claim 14 is cancelled and claims 13 and 22 have been amended appropriately.

### **Sequence Listing**

The Examiner has requested a Substitute Sequence Listing that incorporates the sequences in, e.g., Figure 5. A Substitute Sequence Listing is appended herewith. Furthermore, the specification has been amended to add SEQ ID numbers in the description of Figure 5.

### **Rejections Under 35 U.S.C. § 112, First Paragraph**

Claims 13-20 and 22 have been rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement. The Examiner has incorporated the limitations of claim 1 into claim 13. The Examiner contends that the specification does not provide an adequate written description of mutant glucose isomerases and that it would require

undue experimentation to practice the full scope of the claims. These rejections are respectfully traversed.

Claim 13 as amended encompasses nucleic acids having the sequence of SEQ ID NO:1 or encoding a polypeptide having the sequence of SEQ ID NO:2. On this basis, it is respectfully submitted that claim 13 is fully described and enabled by the present specification and that this rejection should be withdrawn.

**Rejection Under 35 U.S.C. § 112, Second Paragraph**

Claim 14 has been rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. Claim 14 is cancelled herein, rendering this rejection moot.

**Rejections Under 35 U.S.C. §§ 102 and 103**

Claims 13-17 and 22 have been rejected under 35 U.S.C. § 102(b) and 103(a) as anticipated by, or obvious over, Belghith et al., *Biotech. Letts.* 20: 553, 1998. The Examiner contends that Belghith et al. discloses or suggests the presently claimed invention. These rejections are respectfully traversed.

The present claims require an isolated nucleic acid having either the sequence of SEQ ID NO:1 or encoding a polypeptide having the sequence of SEQ ID NO:2.

Belghith et al. is silent with respect to any nucleic acid or protein sequence. Furthermore, as of the filing date of the present application, the nucleic acid described by Belghith et al. had not been deposited in a public depository and thus was not in the public domain. Thus, one of ordinary skill in the art, based on Belghith et al., would have no way of evaluating (either by studying the Belghith et al. reference or by actually sequencing a nucleic acid) whether any correspondence existed between the nucleic acid reported by Belghith et al. and the presently claimed invention.

It is well-established that anticipation requires a significant degree of specificity with regard to the claimed subject matter. See, e.g., *TD Corp. v. Lydall, Inc.*, 48 U.S.P.Q.2d 1321 (Fed. Cir. 1998) ("An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed and that its existence was recognized by persons of ordinary skill in the

art in the field of the invention.”). It is respectfully submitted that the Belghith et al. reference does not reach this level of specificity.

With respect to obviousness, it is respectfully submitted that the mere disclosure of an isolated nucleic acid, without any sequence information, could not have provided one of ordinary skill in the art with any reasonable expectation of obtaining the presently claimed sequences.

For the above reasons, it is respectfully submitted that the present invention is neither anticipated by, nor obvious over, Belghith et al. and that these rejections should be withdrawn.

In light of the above amendments and remarks, it is believed that the claims are in condition for allowance, and a determination to that effect is earnestly solicited.

Respectfully submitted,

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